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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,632	10/09/2003	John Kracik	49964/RVW/V186	1246
23363	7590	07/14/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			BOMAR, THOMAS S	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	

3672

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/682,632

Applicant(s)

KRACIK ET AL.

Examiner

Shane Bomar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☒ Claim(s) 20 and 21 is/are allowed.  
 6) ☒ Claim(s) 1-12 is/are rejected.  
 7) ☒ Claim(s) 13-19 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 09 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 10/20/03, 7/6/04.  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_.




**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 6-9, 11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by US patent 6,742,596 to Haugen.

Regarding claims 1 and 7, Haugen discloses a make-up control system for creating a threaded connection between a first tubular 130 and a second tubular 210 (see Fig. 1B) comprising: a top drive 200 connected to the first tubular; a controller 900 operably connected to the top drive that sends at least one command signal to the top drive, the top drive generating a torque and a rotational speed in response to the at least one command signal, the torque and rotational speed being applied to the first tubular during a make-up process between the first and second tubulars, wherein the top drive generates at least one of either a torque or turn feedback signal that is transmitted to the controller, and wherein the controller monitors the at least one feedback signal to determine at least one of either the torque or number of turns that are applied to the first tubular during the make-up process, and wherein the controller halts the make-up process when one of either a predetermined torque or turn limit is reached (see col. 5, line 1 through col. 6, line 39 and col. 7, lines 47-57). Also disclosed is a method of using the top drive 200 in a make-up process to create a threaded connection between the first tubular and the

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second tubular comprising the steps of: providing a top drive; connecting the first tubular to the top drive; operably connecting a controller to the top drive; transmitting command signals from the controller to the top drive; generating a torque and a rotational speed in the top drive, in response to the command signals, and applying the torque and rotational speed to the first tubular through the top drive during a make-up process between the first and second tubulars; transmitting at least one of either a torque or turn feedback signal from the top drive to the controller, wherein the controller uses the feedback signal to monitor at least one of either the torque or number of turns that are applied to the first tubular during the make-up process; and setting at least one predetermined torque or turn limit in at least one of phase of the make-up process, such that the controller sends a command to the top drive to halt the make-up process when any of the at least one predetermined torque or turn limits are reached (see the aforementioned text as well as claims 23-27).

Regarding claims 2 and 8, the top is an electric motor (see col. 8, lines 20-29).

Regarding claim 6, a turn encoder 250 monitors an amount of rotation of the first tubular during the make-up process and generates a turn feedback signal and transmits the turn feedback signal to the controller (see col. 5, lines 43-45 and col. 7, lines 20-23).

Regarding claim 9, controller 900 inherently controls a motor connected to the top drive (see claim 2).

Regarding claim 11, the method of claim 7 further comprising the step of obtaining torque versus turns data during the make-up process and analyzing the data to determine if the threaded connection between the first and second tubulars is a proper connection (see col. 2, lines 24-34).

Regarding claim 12, the method of claim 7 further comprising a thread matching phase, which comprises the step of aligning a threaded portion of the first tubular for threading engagement with a threaded portion of the second tubular (see for example col. 7, lines 20-28).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haugen in view of US patent 4,885,963 to Nishikawa.

Haugen teaches the system and method for creating a threaded connection with a top drive, as seen in claims 1 and 7 above. However, it is not explicitly taught that a motor controller controls the rotational speed that the top drive imparts on the first tubular by controlling an amount of voltage that is applied to the top drive, or controls the torque that the top drive imparts on the first tubular by controlling an amount of current that is supplied to the top drive.

Nishikawa teaches a system and method for tightening pipe, or tubular threads. It is further taught that a motor controller controls the rotational speed that the top drive imparts on the first tubular by controlling an amount of voltage that is applied to the top drive, and controls the torque that the top drive imparts on the first tubular by controlling an amount of current that is supplied to the top drive (see col. 6, lines 15-59, especially lines 26-31). It would have been

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obvious to one of ordinary skill in the art, having the teachings of Haugen and Nishikawa before him at the time the invention was made, to modify the system and method taught by Haugen to include the motor controller of Nishikawa, in order to prevent over-tightening or insufficient tightening of a pipe. One would have been motivated to make such a combination since Nishikawa has shown it to be notoriously known in the art to use a motor controller to control current and/or voltage when dealing with tubular objects so that a torque limit is not exceeded.

#### *Allowable Subject Matter*

5. Claims 20 and 21 are allowed since the prior art of record, either alone or in combination, fails to teach or suggest a method of using a top drive in a make-up process that includes 5 separate phases, wherein torque limits and the amount of rotation is monitored in the threading phases, the signals produced during the phases are transmitted to a controller, and setting a final threading phase torque limit that will be used to complete the tightening phase, as is currently claimed.

6. Claims 13-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Doniwa teaches a tension control method of interest.


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David V. Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

tsb   
July 8, 2005